

## REMARKS

By this response, a request for a reconsideration of the merits of this plant patent application is respectfully submitted.

The first issue raised by the Examiner in the Office Action was the drawings. The objection to the drawings is that they were mounted on paper. Substitute drawings are submitted herewith mounted on card stock to respond to this objection. No changes to the drawings of any kind have been made.

Next the Examiner objected to the specification as filed asking that all the parts of the specification as suggested by 37 C.F.R. §1.163(c) be in the specification. While the applicant has for many years understood that this listing of parts of patent applications is suggested, and not required, and even though this is clearly a non-statutory rejection, instead of arguing about this requirement, the applicant has prepared and filed herewith a substitute specification containing all the parts in the order set forth in this provision. In accordance with 37 C.F.R. §1.125(c), the substitute specification has all of the additions indicated by underlining and all of the deletions indicated by strikethrough. A clean unmarked copy of the amended specification is also submitted herewith as required by the rule.

The substitute specification is believed to comply with all of the format objections imposed by the Examiner. The section headings now read as the Examiner has suggested, and the order of parts is in the order the Examiner has required. The claim includes the word "plant" as required by the Examiner.

The applicant strongly objects to the Examiner's assertion that the botanical description of the plant in this application is less than a full and complete botanical description. All of the information required by the statutes and required to establish the novelty and distinctiveness of the plant are found in the specification. The origin of the plant, the distinctive features of the plant, the asexual propagation of the plant, and a comparison of the characteristics of the plant to know prior varieties of the same species all are in the specification of this patent application.

The botanical designation and variety denomination have been inserted as required by the Examiner.

The applicant acknowledges the Examiner's guidance to consult examples of plant patents provided by the Examiner, except that no samples were provided by the Examiner.

The location of the description of the drawing figures has been corrected.

The designation "Fig." has been replaced by "FIG.," again as suggested by the Examiner. The various other changes suggested by the Examiner to the description of the drawing figures have been made.

The cultivar names have been surrounded by single quotation marks in the specification as required by the Examiner.

The fact that the variety originated from a single plant has been added to the specification.

The change suggested on page 2 line 12 has been made.

The word “infrutescences” has not been changed. This is the plural of the word “infrutescence,” which means, “The fruiting stage of an inflorescence,” as defined by the *American Heritage Dictionary of the English Language*, Fourth Edition, 2000.

The language of the original paragraph 9 has been amended, and is believed factual and not overly laudatory as amended. This paragraph described why this plant was selected for propagation and is thus central to the patentability of this plant.

The comparison varieties have been designated as unpatented.

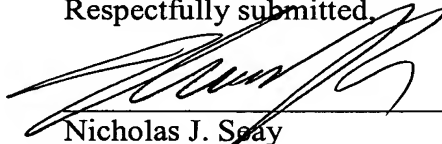
The Examiner also requested additional color designations for the plant. It is submitted by the applicants here that the color designations submitted with this specification were sufficient to examine this application and find the plant new and distinctive. The description of the plant as submitted is in compliance with the statutory requirements and the prior practice in the US Patent and Trademark Office for ornamental plants.

The Examiner then asserts that pages 2 and 3 of the specification appear to describe the species rather than the variety claimed. The applicants respectfully disagree. The distinctive characteristics of the plant of this variety which set it apart from others of the species are specifically identified in this passage. These characteristics include rate and size of growth, most symmetrical shape, more leaves and axillary shoots and mottled leaves in the autumn, all of which are identifying with the variety on page 2. The Table on page 3 compare the variety to other plants of the species and the color identifications are all from the variety. This observation by the Examiner is believed misplaced.

Based on this submission, reconsideration of the merits of this patent application is respectfully requested.

A separate Petition for Extension of Time for a single month is enclosed herewith, so that this response may be considered as timely filed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Nicholas J. Seay", is written over a horizontal line.

Nicholas J. Seay  
Reg. No.: 27,386  
Attorney for Applicants  
QUARLES & BRADY LLP  
P.O. Box 2113  
Madison, WI 53701

TEL 608/251-5000  
FAX 608/251-9166



SEASIDE ALDER NAMED “SEPTEMBER SUN”

Background of the Invention

[0001] Cross-Reference to Related Applications

[0002] None.

[0003] Statement Regarding Federally Sponsored Research and Development.

[0004] Development of this technology was federally funded under the following USDA/CSREES grants: 98-CRHF-0-6019; 99-CRHF-0-6019; 00-CRHF-0-6019; 2001-31100-06019; 2002-31100-06019; 2003-31100-06019.

[0005] Botanical Designation

[0006] *Alnus maritima*, subspecies *oklahomensis*.

[0007] Variety Denomination

[0008] ‘September Sun.’

[0009] Field of the Invention

[00010] The present invention relates to the field of ornamental plants.

[00011] Background of the Invention

~~[0002]~~[00012] Seaside alder, specifically *Alnus maritima* (Marsh. Muhl. ex Nutt) is a relatively rare species in the North American environment that occurs as three disjunct subspecies separated one from another by a large geographic distances. In its native environment the plant appears as a thicket forming large shrub or as a small tree. The seaside alder occurs locally in wet soil or granite outcropping. The seaside alder is principally found locally in Johnston and Byron Counties of Oklahoma, in a region of northwest Georgia, and also locally in Southern Delaware and the Eastern shore of Maryland. It is a shrub that grows very well in water and along the edge of water bodies. Unlike other North American alders that form flowers in the spring, the seaside alder has a late bloom in later summer and early fall. The seaside alder also has characteristic dark green leaves that distinguish it from other alder species.

~~[0003]~~[00013] There has been some successful propagation of the seaside alder by cuttings and seed. The plants taken from each of the three native locations of the plant show slight differences in growth rate and form. The seedlings and cuttings are currently grown in nurseries throughout the Midwest. Nursery grown seaside alder plants will generally grow in most temperate landscapes. Although the native stands of seaside alder seem to occur only in very wet locations, when planted as part of ornamental landscaping, the plants also do very well in cooler and dryer locations.

#### [00014] Summary of the Invention

[00015] The present invention is summarized in a new variety of ornamental plant of the species *Alnus maritima* subsp. *oklahomensis*. The new variety is named ‘September Sun’ and is characterized by rapid growth and fall foliage color.

#### Drawing Figures

##### [00016] Brief Description of the Drawing Figures

[0004][00017] FIGFig. 1 is an illustration of the habit of the typical seaside alder ‘September Sun’ in an image showing several plants of the variety with similar habits.;

[0005][00018] FIGFig. 2 is an illustration of the fall foliage of the seaside alder ‘September Sun’ in an image showing several plants of the variety with similar fall foliage.

[0006][00019] FIGFig. 3 is an enlarged view of the foliage and catkins of the seaside alder ‘September Sun.’

#### Description of the Invention

##### [00020] Botanical Description of the Plant

[0007][00021] The present invention relates to a new and distinct variety of seaside alder, *Alnus maritima* subsp. *oklahomensis*. The seaside alder named here “‘September Sun’” is characterized by rapid growth, particularly as compared to other plants of its species and subspecies and the development of more marketable ornamental strains as compared to other plants.

[0008][00022] ‘September Sun’ was selected from a trial of seaside alder plants as seedlings of *A. maritima* subsp. *oklahomensis* that were grown out on the campus of the Iowa State University at Ames, Iowa. Seeds were collected from a variety of open pollinated *A. maritima* shrubs and plants growing along the banks of the Blue River near Tishomingo, Oklahoma. Some of the seeds were cultivated into plants that were then scored and evaluated for selection for asexual propagation. The highest scored plant was then selected for asexual propagation as a variety and named “September Sun” in view of the time and color of its fall foliage. ‘September Sun’ has been asexually propagated with high rates of success by softwood cuttings using the methods described by Schrader and Graves HortScience 35:293-295 (2000). Ramets from the cuttings grow rapidly and can be two meters tall within two years.

[0009][00023] In general mature plants of ‘September Sun’ are large shrubs or small trees with multiple trunks that form broadly rounded upright canopies. Typically the plants grow to a size of seven meters in heights and five meters in width when not crowded by companion plants. As a genotype of *A. maritima* subsp. *oklahomensis* trunks of “‘September Sun’” support more

leaves and axillary shoots than are found on plants of the other subspecies. This characteristic, when plants of this variety are planted close to each other, can lead to a dense canopy of glossy leaves that are darker in green than the leaves of all other North American alders known to the inventors. Unlike many other *A. maritima* plants which have been observed, leaves of “September Sun” become mottled blends of yellow, orange, and rich brown under a autumnal conditions in USDA Hardiness Zone 5a. *A. maritima*, as a species, is monoecious and is the only species of alder native to North America that blooms late in the growing season. Yellow pendulous catkins expand to eight centimeters in length and display staminate flowers from mid-August to late September. The catkins occurs in clusters of two to six on tips of most branches, providing color in the landscape after flowering has ceased on most other trees and shrubs, and before leaf coloration begins during the autumn. Pistillate inflorescences are three to five millimeters in diameter and pink in color. The pistillate inflorescences occur on peduncles that arise from nodes immediately basipetal to the staminate inflorescences. The infructescences of ‘September Sun’ are medium to dark brown, cone-like strobile. Each of the infructescences is sixteen to twenty-two millimeters in length and eleven to fourteen millimeters in diameter. The strobili mature one year after pollination and persist on the branches through at least one more season, providing subtle ornamentation on the plant for appeal throughout the year.

~~00010~~[00024] The cultivar ‘September Sun’ differs from other known genotypes of its species as it is the fastest growing, most densely foliated, and most symmetrically shaped individual plants that have been observed in field trials including over one thousand plants of the subspecies conducted to date. During a trial that was conducted over three growing seasons at a site in Ames, Iowa, ‘September Sun’ grew larger and developed a more symmetrically canopy shape than did other seedlings of *A. maritima* subsp. *Oklahomensis* in that trial, including half-siblings of the original ‘September Sun’ plant. Shown below in Table 1 is an illustration of the trunk and size characteristics of four representative plants of this subspecies grown in this trial.

TABLE 1

Genotype	Trunk diam <sup>z</sup> (mm)	Canopy height <sup>y</sup> (cm)	Canopy volume <sup>x</sup> (m <sup>3</sup> )
“September Sun”	30.8 a <sup>w</sup>	238.9 a	6.17 a
‘Blue River #6’(unpatented)	23.0 ab	166.3 b	2.35 b
‘Pennington #5’(unpatented)	24.0 ab	155.1 b	1.72 bc
‘Pennington #6’(unpatented)	19.9 b	142.1 b	1.16 c

<sup>z</sup> Diameter of the largest trunk at 10 cm above the soil surface.

<sup>y</sup> Distance from the soil surface to the apex of the tallest shoot.

<sup>x</sup> Canopy volume was calculated by multiplying the shoot height by the horizontal canopy area (area of an ellipse calculated from the north-south and east-west canopy diameter measurements).

<sup>w</sup> Means within each column followed by the same letter are not significantly different at  $P \leq 0.05$  according Student's T-test. N = 1 for "September Sun", N = 8 for 'Blue River #6' and 'Pennington #5', N = 10 for 'Pennington #6'. Dunnett's test for comparing treatment groups against a control (Stevens, 1990) was used to confirm differences between "September Sun" and the three half-sibling groups.

~~{00011}~~[00025] \_\_\_\_\_ To facilitate identification of the variety, the Macbeth-Munsell Disk Colorimeter was used to specifically identify colors of the important plant parts. The top side of the young leaf emerging from twigs is 5 GY 4/6. The lower side of the young leaf emerging from twigs is 5 GY 5/4. The top side of the mature leaf is 7.5 GY 2/4. The fall foliage is variegated, but the most predominant color is 7.5 Y 7/6. The Male inflorescence or flower cluster is 2.5 Y 7/6. The female inflorescence is 10 RP 4/12. The fully mature fruiting structure, or strobili, is 10 YR 2/1.

IN THE CLAIMS.

We/I claim:

1. A new and distinct variety of seaside alder plant named 'September Sun,' substantially as herein shown and described.



#### Abstract of the Disclosure

A novel variety of Seaside Alder, *Alnus maritima* has been identified and asexually propagated. The 'September Sun' Seaside Alder is a large shrub or small tree, that is characterized by being very fast growing, and densely foliated, with symmetrically shaped individual plants.

QBMAD\357471.1